

s/n: 09/672,159

date: 9-2-04

| | | |
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| 4032 ((385/33,34,93) or (359/642,809,811,819)).CCLS. fiber same lens same ((anti\$reflect\$5 or AR) with coat\$5) same | USPAT; US-PGPUB; IBM_TDB | 9/2/04 13:4 |
| 18 substrate same layer lens same ((anti\$reflect\$5 or AR) with coat\$5) same substrate same | USPAT; US-PGPUB; IBM_TDB | 9/2/04 10:4 |
| 289 layer lens same ((anti\$reflect\$5 or AR) with coat\$5) same substrate same | USPAT; US-PGPUB; IBM_TDB | 9/2/04 10:4 |
| 289 layers | USPAT; US-PGPUB; IBM_TDB | 9/2/04 15:2 |
| 10 1 and 4 | USPAT; US-PGPUB; IBM_TDB | 9/2/04 11:2 |
| 5 5195150.URPN. | USPAT | 9/2/04 10:4 |
| 14 5790730.URPN. | USPAT | 9/2/04 10:4 |
| 0 6152610.URPN. ("4070516" "4268113" "4826272" "4969712" "4976506" "5093879" "5125054" "5200631" "5345529" "5351331" "5790730" | USPAT | 9/2/04 10:4 |
| 12 "5956150").PN. | USPAT | 9/2/04 10:4 |
| 79 5093879.URPN. | USPAT | 9/2/04 10:4 |
| 12 5260587.URPN. | USPAT | 9/2/04 10:4 |
| 8 5359208.URPN. | USPAT | 9/2/04 10:5 |
| 4 6304694.URPN. | USPAT | 9/2/04 11:2 |
| 0 6625350.URPN. ("4815807" "4995709" "5394493" "5400429" "5446815" "5815624" "6010251" "6012852" "6019522" "6142678" "6168319" "6263133" "6304694" "6328482" "6393179" "6404955" | USPAT | 9/2/04 11:2 |
| 16 "2002/0057873").PN. | USPAT | 9/2/04 11:2 |
| 36 fiber adj collimator adj array | USPAT; US-PGPUB; IBM_TDB | 9/2/04 11:2 |
| 4 Jian-Benjamin\$9.in. ("3968564" "4292512" "4466696" "4897711" "4934784" "4945400" "5181224" "5195150" "5247597" "5259054" "5337398" "5345529" "5346583" "5434939" "5471552" "5501893" | USPAT; US-PGPUB; IBM_TDB | 9/2/04 11:3 |
| 19 "5742720" "5859940" "6023546").PN. | USPAT | 9/2/04 11:2 |
| 21 5346583.URPN. ("4349410" "4354898" "4433898" "4464458" "4613398" "4653847" "4875750" "4923564" "5073003" "5145793" "5155778" "5247597" "5265177" "5270258" "5343546" "5346583" "5452118" "5600741" "5696862" "5761350" "5764832" "5853960" | USPAT | 9/2/04 11:3 |
| 25 "5872880" "5883988" "5911022").PN. | USPAT | 9/2/04 11:3 |
| 5 micro\$2lens same (fused adj silica) same glass same layer | USPAT; US-PGPUB; IBM_TDB | 9/2/04 11:4 |
| 1 ("6483961").PN. ((385/33,34,93) or (359/642,809,811,819,619,620) or | USPAT; US-PGPUB; IBM_TDB | 9/2/04 11:4 |
| 6588 (257/232,233,432,435,437)).CCLS. | USPAT; US-PGPUB; IBM_TDB | 9/2/04 13:5 |
| 529 lens same substrate same ((ar or anti\$2reflect\$5) with coat\$3) | USPAT; US-PGPUB; IBM_TDB | 9/2/04 14:3 |
| 34 23 and 24 | USPAT; US-PGPUB; IBM_TDB | 9/2/04 13:5 |
| 190 24 and silica and glass | USPAT; US-PGPUB; IBM_TDB | 9/2/04 13:5 |
| 10 23 and 26 | USPAT; US-PGPUB; IBM_TDB | 9/2/04 14:0 |
| 1 ("6483961").PN. | USPAT; US-PGPUB; IBM_TDB | 9/2/04 14:5 |
| 519 lens same spacer same fiber | USPAT; US-PGPUB; IBM_TDB | 9/2/04 14:3 |
| 109 23 and 85 | USPAT; US-PGPUB; IBM_TDB | 9/2/04 14:3 |
| 1 24 same 85 | USPAT; US-PGPUB; IBM_TDB | 9/2/04 14:3 |
| 36 86 and ((ar or anti\$2reflect\$5) with coat\$3) | USPAT; US-PGPUB; IBM_TDB | 9/2/04 14:3 |

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| "4111524" "4153330" "4198117" "4274706" "4279464" | | |
| "4299488" "4343532" "4387955" "4479697" "4522462" "4583820" | | |
| "4622662" "4626069" "4634215" "4643519" "4652080" | | |
| "4671607" "4703472" "4708425" "4726645" "4740951" "4741588" | | |
| "4744618" "4746186" "4748614" "4749247" "4752108" | | |
| "4760569" "4763969" "4773063" "4786133" "4819224" "4834485" | | |
| "4836634" "4857726" "4923271" "4926412" "4930855" | | |
| "4934784" "4979821" "5026131" "5107359" "5170451" "5228103" | | |
| "5278687" "5355237" "5363220" "5440416" "5442472" | | |
| "5450510" "5457573" "5500910" "5513289" "5526155" "5541774" | | |
| "5555334" "5583683" "5606434" "5657406" "5703722" | | |
| "5742416" "5745270" "5745271" "5745612" "5748350" "5748815" | | |
| 70 "5768450" "5777763" "6011884" "6011885").PN. | USPAT | 9/2/04 14:3 |
| 34 4819224.URPN. | USPAT | 9/2/04 14:3 |
| 2 6271970.URPN. | USPAT | 9/2/04 14:4 |
| "4815807" "4995709" "5394493" "5400429" "5446815" | | |
| "5815624" "6010251" "6012852" "6019522" "6142678" "6168319" | | |
| "6263133" "6304694" "6328482" "6393179" "6404955" | | |
| 16 "2002/0057873").PN. | USPAT | 9/2/04 14:4 |
| 33 Helkey-Roger\$9.in. | USPAT; US-PGPUB; IBM_TDB | 9/2/04 14:5 |
| 3 93 and (index with refract\$5) | USPAT; US-PGPUB; IBM_TDB | 9/2/04 15:3 |
| "2982859" "3649105" "3990780" "4303302" "4365863" | | |
| "4378144" "4421381" "4598585" "4626066" "4654663" "4657339" | | |
| "4677290" "4696062" "4855017" "4866699" "4922756" | | |
| "5016072" "5030004" "5083857" "5097354" "5172262" "5203208" | | |
| "5226321" "5271075" "5488862" "5524153" "5536988" | | |
| "5541756" "5555558" "5627669" "5629790" "5670881" "5673139" | | |
| "5796880" "5878177" "5920417" "5943157" "5943454" | | |
| "5960132" "5960133" "6000280" "6031656" "6075239" "6097858" | | |
| "6097859" "6097860" "6101299" "6253001" "6278812" | | |
| 54 "6289145" "6295154" "6320993" "6330102" "6337760").PN. | USPAT | 9/2/04 14:5 |
| 614 lens same ((anti\$reflect\$5 or AR) with coat\$5) same substrate | USPAT; US-PGPUB; IBM_TDB | 9/2/04 15:2 |
| 408 96 and (index with refract\$5) | USPAT; US-PGPUB; IBM_TDB | 9/2/04 15:3 |
| 180 97 and (359/\$.ccls. or 385/\$.ccls. or 257/\$.ccls.) | USPAT; US-PGPUB; IBM_TDB | 9/2/04 15:3 |
| 75 98 and fiber | USPAT; US-PGPUB; IBM_TDB | 9/2/04 15:3 |
| ("3492484" "3649105" "4179183" "4421381" "4479697" | | |
| "4574191" "4598585" "4654663" "4696062" "4696545" "4701011" | | |
| "4745357" "4815806" "4834484" "4834485" "4838637" | | |
| "4859012" "4875756" "4886331" "4922756" "4923269" "4941724" | | |
| "4978193" "4981335" "4993796" "5016072" "5044713" | | |
| "5077622" "5077815" "5083857" "5097354" "5172262" "5203208" | | |
| "5226321" "5440654" "5450245" "5488862" "5524153" | | |
| "5536988" "5627669" "5629790" "RE35575" "5647033" | | |
| "5673139" "5689360" "5822125" "5920417" "5963682" "6000280" | | |
| "6002818" "6046859" "6097858" "6097859" "6097860" | | |
| "6101299" "6208469" "6222679" "6253001" "6328482" | | |
| 60 "6330102").PN. | USPAT | 9/2/04 15:3 |
| 1 ("6328482").PN. | USPAT; US-PGPUB; IBM_TDB | 1/15/03 13:5 |
| 333 fiber near3 socket | USPAT; US-PGPUB; IBM_TDB | 1/14/03 14:0 |
| 328 refract\$4 near3 (microlens or micro\$2lens or (micro adj lens)) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 15:2 |
| 1266 anodic adj bond\$3 | USPAT; US-PGPUB; IBM_TDB | 1/14/03 14:1 |
| 933 wafer adj stack\$4 | USPAT; US-PGPUB; IBM_TDB | 1/14/03 14:1 |
| 16 (microlens or micro\$2lens or (micro adj lens)) near3 sag | USPAT; US-PGPUB; IBM_TDB | 1/14/03 14:2 |

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| 4 ("5,870,224") or ("4,666,248") or ("5,066,099") or ("4,721,361")).PN. | USPAT; US-PGPUB; IBM_TDB | 1/14/03 14:2 |
| 20 (microlens or micro\$2lens or (micro adj lens)) near3 hybrid | USPAT; US-PGPUB; IBM_TDB | 1/15/03 14:0 |
| 1 single adj mode adj fiber adj unit | USPAT; US-PGPUB; IBM_TDB | 1/14/03 14:3 |
| 32367 single near2 mode ear2 fiber near2 unit | USPAT; US-PGPUB; IBM_TDB | 1/14/03 14:3 |
| 36 (single near2 mode ear2 fiber near2 unit) and (fiber near3 socket) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 14:5 |
| 4 4076377.URPN. | USPAT | 1/14/03 14:3 |
| 12 5495541.URPN. | USPAT | 1/14/03 14:3 |
| ("3968564" "4292512" "4466696" "4897711" "4934784" "4945400" "5181224" "5195150" "5247597" "5259054" "5337398" "5345529" "5346583" "5434939" "5471552" "5501893" | | |
| 18 "5742720" "6023546").PN. | USPAT | 9/2/04 10:1 |
| 9 5346583.URPN. | USPAT | 1/14/03 14:4 |
| 10 5853960.URPN. | USPAT | 1/14/03 14:4 |
| ("4749662" "5216414" "5266501" "5404005" "5554446" "5561319" "5593913" "5595930" "5604362" "5739562" "5747790" | | |
| 14 "5853960" "5859450" "5965452").PN. | USPAT | 1/14/03 14:4 |
| ("4349410" "4354898" "4433898" "4464458" "4613398" "4653847" "4875750" "4923564" "5073003" "5145793" "5155778" "5247597" "5265177" "5270258" "5343546" "5346583" "5452118" "5600741" "5696862" "5761350" "5764832" "5853960" | | |
| 25 "5872880" "5883988" "5911022").PN. | USPAT | 1/14/03 14:4 |
| 1 6328482.URPN. | USPAT | 1/14/03 14:5 |
| ("3492484" "3649105" "4179183" "4421381" "4479697" "4574191" "4598585" "4654663" "4696062" "4696545" "4701011" "4745357" "4815806" "4834484" "4834485" "4838637" "4859012" "4875756" "4886331" "4922756" "4923269" "4941724" "4978193" "4981335" "4993796" "5016072" "5044713" "5077622" "5077815" "5083857" "5097354" "5172262" "5203208" "5226321" "5440654" "5450245" "5488862" "5524153" "5536988" "5627669" "5629790" "RE35575" "5647033" "5673139" "5689360" "5822125" "5920417" "5963682" "6000280" "6002818" "6046859" "6097858" "6097859" "6097860" "6101299" "6208469" "6222679" "6253001" "6328482" | | |
| 60 "6330102").PN. | USPAT | 1/14/03 14:5 |
| 18560 fiber near3 optic\$3 near3 (coupl\$4 or pigtail or (pig adj tail) or pig\$2tail) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 14:5 |
| 5860 optic\$3 near3 (cement or adhesive or glue or fasten\$4) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 15:2 |
| (optic\$3 near3 (cement or adhesive or glue or fasten\$4)) and (refract\$4 | | |
| 26 near3 (microlens or micro\$2lens or (micro adj lens))) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 14:5 |
| optic\$3 near3 (cement or adhesive or glue or fasten\$4) and ((fused adj | | |
| 33 silica) same silicon) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 15:2 |
| (single near2 mode ear2 fiber near2 unit) and (optic\$3 near3 (cement | | |
| 785 or adhesive or glue or fasten\$4)) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 15:2 |
| ((single near2 mode ear2 fiber near2 unit) and (optic\$3 near3 (cement | | |
| or adhesive or glue or fasten\$4))) and (refract\$4 near3 (microlens or | | |
| 7 micro\$2lens or (micro adj lens))) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 15:2 |
| 269 collimat\$4 near3 (microlens or micro\$2lens or (micro adj lens)) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 15:2 |
| 2000 (fused adj silica) same silicon | USPAT; US-PGPUB; IBM_TDB | 1/14/03 15:2 |
| (collimat\$4 near3 (microlens or micro\$2lens or (micro adj lens))) and | | |
| 2 ((fused adj silica) same silicon) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 15:2 |
| 337 (359/642).CCLS. | USPAT; US-PGPUB; IBM_TDB | 1/14/03 15:5 |
| (collimat\$4 near3 (microlens or micro\$2lens or (micro adj lens))) and | | |
| 0 ((359/642).CCLS.) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 15:5 |
| 68202 (359).CLAS. | USPAT; US-PGPUB; IBM_TDB | 1/14/03 15:5 |

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| 86 ((359/\$).CCLS.) and (collimat\$4 near3 (microlens or micro\$2lens or (micro adj lens))) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 16:1 |
| 68202 (385/33, 34, 93).CCLS. or (359).CLAS. | USPAT; US-PGPUB; IBM_TDB | 1/14/03 16:1 |
| 86 ((385/33, 34, "93" or 359/\$).CCLS.) and (collimat\$4 near3 (microlens or micro\$2lens or (micro adj lens))) | USPAT; US-PGPUB; IBM_TDB | 9/2/04 10:2 |
| 8 (((385/33, 34, "93" or 359/\$).CCLS.) and (collimat\$4 near3 (microlens or micro\$2lens or (micro adj lens)))) and grin | USPAT; US-PGPUB; IBM_TDB | 1/14/03 16:2 |
| 10 multilayer near3 fiber near3 coupler | USPAT; US-PGPUB; IBM_TDB | 1/14/03 16:2 |
| 694 (multilayer or multi\$2layer or (multi adj layer)) near3 (coupl\$3 or socket) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 16:2 |
| 14 multilayer near3 fiber near3 (coupl\$3 or socket) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 16:3 |
| (multilayer or multi\$2layer or (multi adj layer)) near3 fiber near3 | | |
| 22 (coupl\$3 or socket) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 16:2 |
| ("4673270" "4798436" "4976512" "5011251" "5044716" "5129020" "5179603" "5268979" "5295210" "5295211" "5339372" "5412745" "5754720").PN. | USPAT | 1/14/03 16:2 |
| 23336 fiber near3 (coupl\$3 or socket) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 16:3 |
| (fiber near3 (coupl\$3 or socket)) and (fiber near3 optic\$3 near3 | | |
| 17094 (coupl\$4 or pigtail or (pig adj tail) or pig\$2tail)) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 16:3 |
| ((fiber near3 (coupl\$3 or socket)) and (fiber near3 optic\$3 near3 | | |
| (coupl\$4 or pigtail or (pig adj tail) or pig\$2tail))) and (refract\$4 near3 | | |
| 54 (microlens or micro\$2lens or (micro adj lens))) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 16:4 |
| 14 5680186.URPN. | USPAT | 1/14/03 16:4 |
| ("4790632" "4904063" "5052783" "5101279" "5161042" "5165075" "5680186").PN. | USPAT | 1/14/03 16:4 |
| ("3622224" "3680950" "3697150" "4470668" "4534622" "4626303" "4709991" "4790632" "4793691" "4836652" "4884876" "4963002" "4985285" "5029985" "5052783" "5054890" "5056896" "5064697" "5078475" "5089904" "5101279" "5150138" "5151801").PN. | USPAT | 1/14/03 16:4 |
| 2 ("Re26506" "1263065").PN. | USPAT | 1/14/03 16:4 |
| 155 (two near2 dimension\$2) near2 (lens near2 array) | USPAT; US-PGPUB; IBM_TDB | 1/14/03 16:4 |
| 2238 anod\$3 near2 bond\$3 | USPAT; US-PGPUB; IBM_TDB | 1/15/03 15:5 |
| 281 (microlens or micro\$2lens or (micro adj lens)) near2 substrate | USPAT; US-PGPUB; IBM_TDB | 1/15/03 17:3 |
| (anod\$3 near2 bond\$3) and ((microlens or micro\$2lens or (micro adj lens)) near2 substrate) | USPAT; US-PGPUB; IBM_TDB | 1/15/03 14:0 |
| (microlens or micro\$2lens or (micro adj lens)) same (anod\$3 near2 bond\$3) | USPAT; US-PGPUB; IBM_TDB | 1/15/03 15:4 |
| 5 ("4822167" "5122663" "5155412" "5789748" "6077417").PN. | USPAT | 1/15/03 14:4 |
| 104 (anod\$3 near2 bond\$3) same optic\$3 | USPAT; US-PGPUB; IBM_TDB | 1/15/03 15:5 |
| 31 polish near2 substrate same bond\$3 | USPAT; US-PGPUB; IBM_TDB | 1/15/03 16:5 |
| ("4532003" "4638552" "4963505" "5097314" "5100814" "5234535").PN. | USPAT | 1/15/03 15:5 |
| 70 4638552.URPN. | USPAT | 1/15/03 15:5 |
| 2 5200010.URPN. | USPAT | 1/15/03 16:3 |
| 4 (("5846638" or ("5200010" or ("5195150" or ("5790730"))).PN. | USPAT; US-PGPUB; IBM_TDB | 1/16/03 11:4 |
| 11 (microlens or micro\$2lens or (micro adj lens)) near2 sag | USPAT; US-PGPUB; IBM_TDB | 1/15/03 17:3 |
| 233 (reduce near3 stress) same trench | USPAT; US-PGPUB; IBM_TDB | 1/16/03 11:4 |
| 45 ((reduce near3 stress) same trench) and lithography | USPAT; US-PGPUB; IBM_TDB | 1/16/03 11:4 |
| 4 ("4683637" "4853348" "4925805" "5183775").PN. | USPAT | 1/16/03 11:5 |